



Demand-led development in water sector

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THE MAHAPANI PROJECT aims to build local capacity to develop, use and manage water and environmental sanitation facilities in a healthy, equitable and sustainable manner. It is estimated that the project will directly benefit 1.7 million people in Nashik, Jalgaon, Dhule and Nandurbar districts of Maharashtra State of India. By demonstrating a successful and replicable model the project will also influence state and national policy in the sector.

Existing scenario

A 1998 Department for International Development (DFID) study of water resources in Maharashtra, indicated that 62 per cent of the villages and hamlets in the state are classified as problematic, that is they do not have a drinking water source nearby or supply is insufficient, seasonal or polluted. Access to latrines is uniformly low in the state, at about 11 per cent, dropping to 4 per cent in the tribal areas of Nashik and Nandurbar. A study on poverty in Maharashtra showed that the four districts of Nashik, Jalgaon, Dhule and Nandurbar fare poorly on most indicators of human development and have some of the lowest levels of access to drinking water.

In many villages in this area, domestic water supply wells are unable to provide adequate water throughout the summer, often due to over-exploitation of groundwater for irrigation. The existing solution to this problem is the provision of regional piped water supply schemes (RPWSS). This solution is supply driven, is non-responsive to need and is expensive. In addition the schemes are typically beset with reliability and maintenance problems.

The need for reform

These problems are recognised, and the need for reform is accepted at National level, and increasingly by the States. However there remains reluctance in many States, and at the levels below, to implement the agenda whilst powerful vested interests remain and there is little successful experience of an alternative approach.

GoM has recognised that the existing approach is unsustainable and have expressed their interest in seeing an alternative approach demonstrated. The project aims to develop such an alternative, demand driven, approach. If it is successful GoM have expressed their intention to replicate the project approach in other districts of Maharashtra.

Project design

Based on the experience of existing projects which are not generally sustainable and usually supply led, the Government of Maharashtra (GoM) and DFID drafted a set of Guiding Principles for future development in the sector. These principles emphasised a demand responsive, participatory approach to the development of services that involves primary stakeholders in all stages of project identification, planning, implementation and management in order to ensure that water supply and environmental sanitation (WES) services are appropriate, equitable and sustainable.

The project design, which was funded by DFID in late 1998, has adhered closely to these principles:

- *Demand responsive* - The project will adopt a demand responsive approach in order to ensure that services are appropriate, used and maintained. Project field teams will facilitate the process of intra-village negotiation in a manner that ensures that the most vulnerable groups benefit from a basic level of services through appropriate arrangements for payment.
- *Participation* - especially of the most disadvantaged groups and individuals within the community in order to ensure that benefits accrue to these groups and that project interventions do not disproportionately burden any one group.
- *Equity* - by ensuring equitable access to project benefits and by increasing management and control of WES assets by disadvantaged groups, including women, the project will promote equality of caste, class and gender.
- *Sustainability* - the aim of MAHAPANI is to develop appropriate responses to demands for water and environmental sanitation services by communities in the project area. The focus will be on technical options with high in-built standards in order to deliver reliable, convenient and affordable services that villagers want, are satisfied with and willing and able to maintain.

Project benefits

The direct benefits of the project will be the provision of sustainable water supplies, health education and appropriate environmental sanitation services over a project period of ten years in up to 1,800 problem villages.

The project will prioritise:

- areas with a high number of ‘problem’ villages and hamlets, where existing water supplies are inadequate;
- villages with a high tribal population;
- villages with high rates of poverty and poor social indicators.

Within target areas, all villages will be covered by the baseline activities of the project: social, health and resource mapping and health promotion. Infrastructure activities will then follow a demand-responsive approach. Thus project processes will give preference to communities that demand improvements in their existing water supply and/or environmental sanitation services.

Project interventions will be developed through a participatory village-level planning process, which is iterative in nature. The aims of the process will be to:

- involve all groups in the planning, selection, implementation and monitoring to ensure equity, and particularly to identify vulnerable groups and barriers to access of existing services and resources; and,
- build the capacity of local level institutions to manage, maintain and use safely the facilities installed to ensure sustainability.

The project will develop capacity at all levels in order to support the improved delivery of WES services at village level. Development of human resources will be central to the approach and will focus on governmental organisations as well as non-governmental resources.

The project will promote the development of local sources, particularly groundwater. To sustain reliable water supplies, the project interventions will include water resources development and management activities, which directly or indirectly promote the sustainability of domestic water sources.

The project seeks to complement and supplement existing village assets and resources, rather than to replace these, and to contribute to a sustained development of assets over the long-term. Where appropriate, existing assets will be rehabilitated and upgraded.

To achieve improvements in health, the project will integrate the provision of adequate and reliable water supplies with the development of environmental sanitation facilities and health promotion activities targeted at changing unsafe health behaviours.

The project has been developed with a management structure that will encourage convergence with other national and state government funded programmes, such as the Watershed Development Programme and initiatives in school sanitation.

The project will work closely with organisations involved in the delivery of water supply and sanitation facilities, in order to promote a demand based approach to

the planning, implementation and O&M of services and better standards of design and construction.

Technical approach

The project aims to integrate, at a village or micro-watershed level, the development and management of domestic water supply, environmental sanitation and natural resources in order to achieve reliable and sustainable water and environmental sanitation facilities over which communities have adequate control.

The emphasis on local solutions which can be developed and managed by communities should be more cost-effective than the current approach. A range of interventions will be used to increase the yield and reliability of local sources to ensure a safe and reliable supply of drinking water throughout the year.

There is strong competition for available water resources and, whilst Ground Water legislation exists, there is a lack of effective regulation and management of existing resources. This has resulted in widespread over-exploitation of groundwater for irrigation. Water resources development and management activities will be important in order to attain sustainable water sources, which can provide reliable water supplies at a local level.

In order to improve health, and particularly to reduce the impact of diarrhoeal diseases, a health promotion programme will be designed and implemented to encourage changes in individual and community hygiene behaviour. Recent studies indicate that hygiene promotion is particularly efficient and effective in reducing mortality and morbidity from child diarrhoea. Safe excreta disposal, especially for sick people and children; and more water for personal hygiene, especially hand washing, and protecting water quality, in that order, have been identified as the most influential factors in reducing morbidity and mortality due to diarrhoeal disease.

Changes in individual and community behaviour can only happen through a Health Promotion strategy that is carefully integrated with other project processes right from the beginning. A number of Health Promotion activities will take place at the start of the project and continue through the planning and implementation phase. Activities will target children, teachers, women and women’s groups, youth groups and men for behavioural change. The strategy will be continually reviewed and modified to build on successes and to ensure that demands for improvements elicit a speedy and appropriate response from the project.

Environmental impact

The project is expected to have a beneficial environmental impact. This is largely due to the focus of the project on small-scale local solutions to water supply and sanitation problems, and active community involvement.

Institutional Development

Current institutional arrangements for management of water resources, environmental sanitation and related ac-

tivities, are marked by multiplicity and compartmentalisation. The Irrigation Department has traditionally arbitrated between end-users and despite the proclaimed importance of drinking water, irrigation demands have been accorded priority. Furthermore, a target and supply-driven approach currently prevails in the sector. Most notably, GoM agencies are pre-occupied with the goal of a tanker-free state by the year 2000. Institutional failures, rather than absolute scarcity or unavailability of technical options, have caused the current situation.

The project will focus on the development and strengthening of village level institutions to:

- make greater demands on government institutions for improved levels of service;
- improve the operation and maintenance of existing facilities and those constructed by the project; and
- better manage water resources to ensure adequate supplies of drinking water for all throughout the year.

The GoM will be responsible for implementation of the main project components. The Project Management Unit will be responsible for managing the project at state level. In addition to its responsibility for the wider policy and institutional reform agenda, the PMU will provide technical, managerial and monitoring support to the district level institutions. In order to do this the PMU will have the full range of expertise available including: health promotion; social development; and Integrated Water Resource Management (IWRM).

A District Project Management Unit will oversee project activities in each district. The DPMU will be a multidisciplinary body headed by the Chief Executive Officer (CEO) of the Zilla Parishad (ZP), the District level government administrative unit. It will include a project manager, assisted by accounts, administration and data management support, and staff competent in social development, health promotion, water and sanitation engineering and water resources management.

DPMUs will be responsible for project management, technical support, monitoring and financial control. Specifically, they will:

- Be responsible for deploying and managing Water and Environmental Sanitation Teams (WESTs), who will facilitate project activities at village level;
- Manage timely and comprehensive appraisal of Village Actions Plans (VAPs);
- Ensure quality of process and outputs at the village level;
- Co-ordinate project inputs across WESTs; and
- Co-ordinate with other government departments at district level.

Each WEST will be a small, multi-disciplinary team deployed to service a cluster of about 20 villages at a time.

They will facilitate the formation and strengthening of Village Environment Development Committees (VEDCs). The WESTs will be responsible for undertaking project activities at village level in adherence with the project guiding principles of demand-responsiveness, participation, equality and sustainability. The WESTs could be staffed by government officials on deputation; contracted out to local NGOs or CBOs; or a mixture of the two.

The VEDC will be a sub-committee of the elected Village Panchayat and, in addition to elected members, will be representative of various stakeholder groups in the village, particularly women, Scheduled Castes (SC) and Scheduled Tribes (ST). The VEDCs will be responsible for preparation of the VAP and for ensuring that the VAP truly represents the demands of all stakeholders.

The project approach places significant demands on traditional delivery mechanisms. GoM have committed themselves to the timely establishment of district and village level structures; and to putting in place the legal and procedural framework necessary for them to operate. In addition, the design envisages the recruitment and training of a large number of skilled personnel. To assist in meeting these demands, it is envisaged that significant external support will be required at the beginning of the project.

Social development

The key responsibility of the social development function at each level is to ensure adherence to the principles of participation, equity and sustainability of project interventions. The objective of social development processes is to develop capacity at village and hamlet level to enable communities to identify problems and formulate strategies to overcome them.

Given the heterogeneity of many communities in the region as well as intra-village disparities, the project will identify the poorest and the most vulnerable to ensure that they receive project benefits. There is a significant population of STs in the project area, notably in Nashik and Nandurbar districts. The project will prioritise watersheds and villages with a high ST population for interventions and will emphasise active participation of this community in project processes in order to ensure that they benefit from project interventions.

Women and girls are the primary users of water, responsible for collection, storage and domestic usage. The project will focus on gender, rather than women in isolation, as it recognises the different needs and interests of women and men in relation to water and environmental sanitation and the structural inequalities governing access to and control of these resources. The project will ensure that interventions do not disproportionately burden any particular group through an increased, unpaid, workload.

Women will be favoured in management roles or opportunities for employment or skills enhancement created by project interventions, in order that they benefit from increased decision-making and improved status and recognition in the public sphere.

Economic aspects

Communities will be asked to contribute between 2½ and 5 percent towards capital costs and take responsibility in full for operations and maintenance costs at the village level. Households wishing to have private connections will pay the full cost of the connection, in line with current GoM practice. Cross-subsidies to marginalised groups will be encouraged in order to ensure equity of access.

The project will consult users in all villages in order to determine the level and type of service they want and are willing and able to pay for, to ensure the project is responsive to demand.

GOM's annual financial contribution to the project amounts to some 0.7 per cent of its total water supply and sanitation budget for the whole state and about 12 per cent of its current annual expenditure in the four districts, so is affordable. Beyond the end of the project GOM will need to continue to meet some support costs, but such costs are likely to be much less than GOM's contributions to the project.

Programme

The project will be implemented over ten years in a phased manner. In Year One of the project, efforts will be focused upon capacity building and start-up activities in a limited number of pilot villages. Implementation in selected pilot villages in each district will follow in year Two. Batch size, location and deployment of human resources will need to be re-assessed during Year One and at the end of Year Three in order to further define the expansion and acceleration of project activities.

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